

Applicant: Gerald ROOS et al
Docket No. R.307205
Preliminary Amdt.

AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/EP 2005/050228 filed on January 20, 2005.

[0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0001] with the following amended paragraph:

[0001] ~~Prior Art~~ **Field of the Invention**

Please replace paragraph [0002] with the following amended paragraph:

[0002] The invention is ~~based on an~~ **directed to an improved** armature for a direct current motor, in particular for a permanent-magnet-excited direct current motor~~[,]~~ **as generically defined by the preamble to claim 1.**

Please add the following new paragraph after paragraph [0002]:

[0002.5] Description of the Prior Art

Page 2, please replace paragraph [0005] with the following amended paragraph:

[0005] **Advantages of the Invention**

SUMMARY AND ADVANTAGES OF THE INVENTION

Please replace paragraph [0006] with the following amended paragraph:

[0006] The armature of the invention for a direct current motor ~~having the characteristics of~~ **claim 1** has the advantage that the armature body, in the region of the tooth head, is lengthened by the flux-conducting elements in a way that is simpler and more economical to

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produce, and as a result, the desired increase in the magnetic flux is attained. Despite axially lengthened tooth heads, the armature body has a shape that is advantageously simple from a production standpoint. With armature bodies typically conceived of as a sheet-metal lamination packet, an arbitrary armature length can be realized by stacking up an arbitrary number of identically designed sheet-metal laminations in one tool and making a packet of them by stamping, and the flux reinforcement is then brought about by axially placing the flux-conducting elements on top **of the stack**.

Please delete paragraph [0007].

Please replace paragraph [0008] with the following amended paragraph:

[0008] **Advantageous refinements of and improvements to the armature are disclosed.**
In an advantageous embodiment of the invention, the flux-conducting elements are linked in pushbutton-like fashion to the tooth heads. To that end, in a preferred embodiment of the invention, linking holes, preferably two linking holes spaced apart from one another, are provided in the face ends of the tooth heads, and axially protruding linking pins, preferably two linking pins spaced apart from one another, which can be pressed into the linking holes are provided on each flux-conducting element.

Page 4, please replace paragraph [0012] with the following amended paragraph:

[0012] Drawings **BRIEF DESCRIPTION OF THE DRAWINGS**

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Please replace paragraph [0013] with the following amended paragraph:

[0013] The invention is described in further detail ~~in the ensuing description~~ herein below in terms of an exemplary embodiment ~~shown in the drawings. Shown are~~ with reference to the drawings, in which:

Please replace paragraph [0014] with the following amended paragraph:

[0014] Fig. 1[[],] is a half longitudinal section through a direct current motor according to the invention;

Please replace paragraph [0015] with the following amended paragraph:

[0015] Fig. 2, an end view of an armature body ~~of the armature~~ of the DC motor of Fig. 1;

Please replace paragraph [0016] with the following amended paragraph:

[0016] Fig. 3, a section taken along the line [[II]] III-III in Fig. 2;

Please replace paragraph [0019] with the following amended paragraph:

[0019] Fig. 6, a side view of a flux-conducting element in Fig. 2; and

Please replace paragraph [0021] with the following amended paragraph:

[0021] Description of the Exemplary Embodiment

DESCRIPTION OF THE PREFERRED EMBODIMENT

Page 6, please replace paragraph [0025] with the following amended paragraph:

[0025] To achieve a maximum specific weight of the motor, on the one hand the permanent magnets 14 of the stator 11 are embodied as longer than the armature body 19 (Fig. 1), and on the other, the armature body 19 is additionally lengthened in the axial direction. This lengthening is achieved with flux-conducting elements 34 (Figs. 2 and 7), which are mounted

on both face ends of the armature body 19 onto each end face of the tooth heads 23. The flux-conducting elements 34 are adapted in their profile to the tooth head profile, so that they rest congruently with the tooth heads [[25]] 23. For being secured to the tooth heads 23, the flux-conducting elements 34 have linking pins 35 (Fig. 6), which have the same spacing from one another as the linking holes 32 (Fig. 2) in the tooth head region of the two outer armature laminations 29. The linking pins 35 are embodied such that they can be pressed by nonpositive engagement into the linking holes 32. As Figs. 3 and 6 show, the flux-conducting elements 34 are stacked and are put together by stamping packeting, for instance from three laminations 36 or so-called flux-conducting laminations. The thickness of the laminations 36 in the axial direction is equivalent to the axial thickness of the armature laminations 29. All the flux-conducting elements have the same number of laminations 36.

Page 7, please replace paragraph [0026] with the following amended paragraph:

[0026] To compensate for an imbalance of the armature that occurs for instance when the armature shaft is supported in an eccentric bearing that is fixed in a built-in module of the motor, at at least one selected tooth head 23 - in a manner not further shown - the flux-conducting element 34 is put together from a number of laminations 36 that is less than the number of laminations in the other flux-conducting elements 34 ~~at the other flux-conducting elements 34~~, which all have the same number of laminations. The selection of the tooth head 23 is made in accordance with the location of the imbalance to be compensated for. In this case, the term used is a static imbalance compensation. For a dynamic imbalance compensation, a further flux element 34, which is mounted on a tooth head 23 located

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diametrically of the tooth head 23 that carries the flux-conducting element 34 having the reduced number of laminations, or in other words that is rotated from it by a circumferential angle of 180°, is equipped with the same reduced number of laminations. This flux-conducting element 34 with the reduced number of laminations is seated on the particular end face of the tooth head 23 that faces away from the end face of the other tooth head 23 that carries the other flux-conducting element 34 having the reduced number of laminations. The number of laminations 36 in the two flux-conducting elements 34 having the reduced number of laminations is the same.

Page 8, please add the following new paragraph after paragraph [0027]:

[0028] The foregoing relates to a preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.